

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/028284 A1

(51) International Patent Classification⁷: A43B 7/12, 13/16

(21) International Application Number:

PCT/EP2003/010395

(22) International Filing Date:

18 September 2003 (18.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PD2002A000246

24 September 2002 (24.09.2002) IT

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

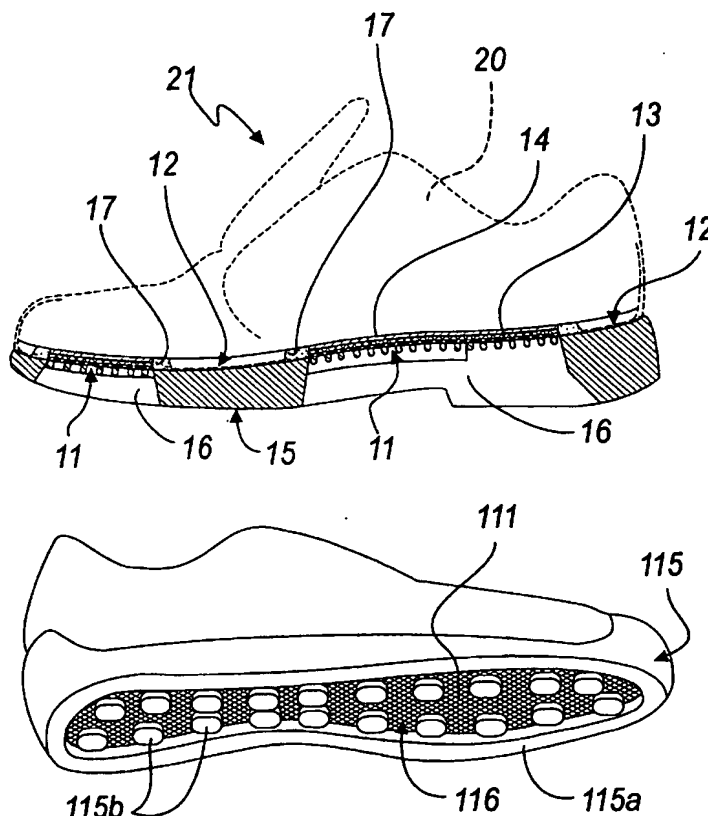
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: **WATERPROOF AND BREATHABLE SOLE FOR SHOES, AND SHOE MANUFACTURED WITH SUCH SOLE**



(57) Abstract: A waterproof and breathable sole for shoes, having a structure that comprises a supporting layer (10, 110) which, at least in a preset macroportion (11, 111), is made of net, felt or other diffusely perforated material; a membrane (13, 113) made of a material that is impermeable to water and permeable to water vapor is associated above the supporting layer (10, 110) at least in the at least one preset macroportion (11, 111) made of net, felt or other diffusely perforated material, which it covers; a tread (15, 115) made of plastic material, with at least one through macroperforation (16, 116) at the at least one preset macroportion (11, 111) made of net, felt or other diffusely perforated material, is joined hermetically to the membrane (13, 113) and to the supporting layer (10, 110) at least at the perimeter of the at least one macroportion (11, 111) made of net, felt or other diffusely perforated material.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

PCT/EP/03/10395

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A43B7/12 A43B13/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A43B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/32246 A (POLEGATO MORETTI MARIO ; NOTTINGTON HOLDING BV (NL)) 25 April 2002 (2002-04-25) page 6; figure 3	1,2
A		16
X	WO 97/14326 A (POLEGATO MARIO ; NOTTINGTON HOLDING BV (NL)) 24 April 1997 (1997-04-24) claims 1,17; figures	1,4,5
A		16
X	WO 98/51177 A (POLEGATO MARIO ; NOTTINGTON HOLDING BV (NL)) 19 November 1998 (1998-11-19) claims; figures	1,4
A		16
X	US 2001/003875 A1 (MORETTI MARIO POLEGATO) 21 June 2001 (2001-06-21) paragraph '0016!; claims 1-4,18; figure 4	1
A		16
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☒ Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search

21 January 2004

Date of mailing of the international search report

28/01/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EP 0 713 658 A (GORE W L & ASS SRL) 29 May 1996 (1996-05-29) claims; figure 1</p> <p>-----</p>	3

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/EP 03/10395

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0232246	A	25-04-2002	IT PD20000242 A1	19-04-2002
			AU 1696102 A	29-04-2002
			WO 0232246 A1	25-04-2002
			EP 1326503 A1	16-07-2003
WO 9714326	A	24-04-1997	IT PD950190 A1	14-04-1997
			IT PD960126 A1	17-11-1997
			AP 1033 A	27-12-2001
			AT 189103 T	15-02-2000
			AU 721719 B2	13-07-2000
			AU 7288696 A	07-05-1997
			BG 63767 B1	29-12-2002
			BG 102384 A	30-10-1998
			BR 9606686 A	23-12-1997
			CA 2234720 A1	24-04-1997
			CN 1234725 A	10-11-1999
			CZ 9800969 A3	15-07-1998
			DE 69606421 D1	02-03-2000
			DE 69606421 T2	21-09-2000
			EA 273 B1	25-02-1999
			WO 9714326 A1	24-04-1997
			EP 0858270 A1	19-08-1998
			ES 2142620 T3	16-04-2000
			GR 3033025 T3	31-08-2000
			HU 9900182 A2	28-05-1999
			IL 123890 A	28-01-2001
			JP 11513582 T	24-11-1999
			NO 981565 A	06-04-1998
			NZ 320188 A	30-08-1999
			PL 326202 A1	31-08-1998
			PT 858270 T	31-07-2000
			RO 117228 B1	28-12-2001
			SI 858270 T1	30-04-2000
			SK 45198 A3	04-11-1998
			TR 9800633 T1	22-06-1998
			US 5983524 A	16-11-1999
			ZA 9608643 A	10-06-1997
WO 9851177	A	19-11-1998	IT PD970102 A1	09-11-1998
			AT 245366 T	15-08-2003
			AU 751986 B2	05-09-2002
			AU 7650798 A	08-12-1998
			BR 9809606 A	04-07-2000
			CN 1126478 B	05-11-2003
			DE 69816614 D1	28-08-2003
			DK 983006 T3	17-11-2003
			EA 1663 B1	25-06-2001
			EE 9900522 A	15-06-2000
			WO 9851177 A2	19-11-1998
			EP 1312275 A2	21-05-2003
			EP 0983006 A2	08-03-2000
			HU 0001668 A2	28-09-2000
			ID 22937 A	16-12-1999
			JP 2001524854 T	04-12-2001
			NO 995456 A	08-11-1999
			NZ 500742 A	30-11-2001
			NZ 514563 A	29-04-2003
			PL 336785 A1	17-07-2000

INTERNATIONAL SEARCH REPORT

Information on patent family members

PC 03/10395

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9851177	A	SI 983006 T1	31-12-2003
		SK 152899 A3	16-05-2000
		TR 9902763 T2	21-03-2000
		US 2002100187 A1	01-08-2002
		US 6389711 B1	21-05-2002
US 2001003875	A1 21-06-2001	IT PD980157 A1	27-12-1999
		AU 760042 B2	08-05-2003
		AU 4514999 A	10-01-2000
		BR 9911561 A	20-03-2001
		CA 2335833 A1	29-12-1999
		DE 29923235 U1	06-07-2000
		EA 2796 B1	31-10-2002
		EP 1089642 A1	11-04-2001
		HU 0102871 A2	28-11-2001
		JP 2002518118 T	25-06-2002
		NO 20006615 A	26-02-2001
		NZ 509110 A	29-08-2003
		CN 1307454 T	08-08-2001
		WO 9966812 A1	29-12-1999
		HR 990201 A1	29-02-2000
		ID 23489 A	27-04-2000
		TR 200003854 T2	21-12-2001
		TW 442265 B	23-06-2001
		ZA 200007800 A	21-12-2001
EP 0713658	A 29-05-1996	IT VI940062 U1	23-05-1996
		EP 0713658 A1	29-05-1996